

USAWC STRATEGY RESEARCH PROJECT

**SHOULD THE NATIONAL RESPONSE PLAN BE CHANGED TO DIVIDE THE  
TRANSPORTATION RESPONSIBILITIES UNDER EMERGENCY SUPPORT  
FUNCTION #1? LESSONS LEARNED FROM HURRICANE KATRINA SHOW THAT  
TRANSPORTATION SUPPORT FOR EMERGENCY RESPONSE NEEDS REVISION**

by

Colonel Robert P. Johnson Jr.  
United States Army

Colonel Mark Eshelman  
Project Adviser

This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College  
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>15 MAR 2006</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2005 to 00-00-2006</b>	
4. TITLE AND SUBTITLE <b>Should the National Response Plan Be Changed to Divide the Transportation Responsibilities under Emergency Support Function #1?</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) <b>Robert Johnson</b>				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>See attached.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES <b>22</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## **ABSTRACT**

AUTHOR: Colonel Robert P. Johnson Jr.

TITLE: Should the National Response Plan Be Changed To Divide the Transportation Responsibilities Under Emergency Support Function #1? Lessons Learned From Hurricane Katrina Show That Transportation Support for Emergency Response Needs Revision

FORMAT: Strategy Research Project

DATE: 15 March 2006      WORD COUNT: 5745      PAGES: 21

KEY TERMS: National Response Plan, ESF #1, Transportation, Emergency Response

CLASSIFICATION: Unclassified

The Department of Homeland Security recently released the National Response Plan (NRP) in order to “establish a comprehensive, national, all-hazards approach to domestic incident management across a spectrum of activities including prevention, preparedness, response, and recovery.” Within the NRP there are 15 different categories of the most likely requests for federal assistance during disaster response, called Emergency Support Functions that designate lead agencies for emergency response. ESF #1 designates the Department of Transportation (DOT) as the lead agency for all emergency transportation related requirements.

The Department of Defense has a role in providing “Defense Support of Civil Authorities” (DSCA) in response to requests for assistance after the local and state authorities determine that they cannot handle the situation. Lessons learned from Hurricane Katrina identified numerous flaws in the way that local, state and federal authorities coordinated and managed emergency transportation assets. This paper suggests that DOD, specifically the United States Transportation Command (USTRANSCOM) should play a greater role in emergency transportation response. To establish a greater role for USTRANSCOM, the National Response Plan ESF #1 should be amended to split transportation responsibilities for disaster response between DOT and USTRANSCOM.



SHOULD THE NATIONAL RESPONSE PLAN BE CHANGED TO DIVIDE THE  
TRANSPORTATION RESPONSIBILITIES UNDER EMERGENCY SUPPORT  
FUNCTION #1? LESSONS LEARNED FROM HURRICANE KATRINA SHOW THAT  
TRANSPORTATION SUPPORT FOR EMERGENCY RESPONSE NEEDS REVISION

We as a nation have the enduring belief that we must always put the welfare of our citizens and our nation at the forefront of all that we do. Life, liberty and the pursuit of happiness is the basis of our national purpose and our ethics and values stem from these beliefs. These very ethics and values are stretched to their limit when our nation experiences a catastrophic disaster where the people of our nation suffer. We are a compassionate people, therefore, it is in our national interest to alleviate suffering and act with all available means to save life and limb of our citizens.

Since the recent catastrophic domestic disaster caused by Hurricane Katrina the people of our nation and our government officials are questioning whether the role and use of active duty military forces should be expanded. Whether our nation is struck by a natural disaster like a major earthquake, tsunami, or hurricane or by a man-made disaster caused by technological mistake or terrorism; the proper coordination and employment of transportation assets will be critical in moving personnel and equipment into and out of the effected areas.

Tied to any evacuation plan is the necessity to optimize any and all available transportation assets to provide transit of those that have no means to evacuate themselves. This includes hospital patients, prisoners, handicapped and other members of society with special needs or requirements. Initial lessons learned from Hurricane Katrina show that the transportation plan to support evacuations failed miserably. The purpose of this paper is to examine the lessons learned from local, state and federal transportation disaster response to Hurricane Katrina. Review of the roles the Federal Emergency Management Agency (FEMA), the Department of Transportation (DOT) and the United States Transportation Command (USTRANSCOM) played during Hurricane Katrina provide a foundation for determining if the current method of coordinating for and employing transportation in the National Response Plan (NRP) Emergency Support Function #1 (ESF) is adequate.

“Over the next 20 years, projections published by the National Oceanic and Atmospheric Administration indicate that population in coastal counties will increase from 80 million to 127 million.”<sup>1</sup> This coastal population includes several of the Nation’s most populated cities that are located within 100 miles of the coastline: New York, Los Angeles, Philadelphia, and Seattle. Urbanization and the continuing population growth along our coastlines present several potentially catastrophic situations in the event of a man-made or natural disaster. Historical

evidence shows the mass destruction that hurricanes and tsunamis can cause and prior terrorist attacks show that they will strike at our heaviest populated areas to inflict the most destruction and loss of life. A major catastrophic domestic disaster may severely damage the transportation system in the impacted area. Local transportation activities will be hampered by damaged facilities, equipment, and infrastructure. At the same time, the disaster will create significant demands for national, regional, and local transportation resources to provide relief and recovery. A coordinated effort by federal, state and local agencies may be required to meet these demands for movement.<sup>2</sup>

#### Graduated Disaster Response

In the National Strategy for Homeland Security, July 2002 there are three Strategic Objectives: prevent terrorist attacks within the United States; reduce America's vulnerability to terrorism; and minimize the damage and recover from the attacks that do occur.<sup>3</sup> It is the third objective "minimize the damage and recover from the attacks that do occur" that pertains to the disaster response. Following the terrorist attacks on September 11, 2001, The Homeland Security Act of 2002 established the Department of Homeland Security (DHS) and designated DHS as "a focal point regarding natural and manmade crises and emergency planning."<sup>4</sup> In Homeland Security Presidential Directive (HSPD-5) the President directed the development of a National Response Plan (NRP). Published in December 2004 The National Response Plan's purpose was to "establish a comprehensive, national, all-hazards approach to domestic incident management across a spectrum of activities including prevention, preparedness, response and recovery."<sup>5</sup>

The NRP is specifically designed for disaster response to be a graduated response with local authorities in the lead, followed by state responders then followed by federal forces or agencies. The inherent philosophy behind a graduated response to disasters is that in most incidents, local and state authorities can handle the situation and often don't need to receive federal level involvement. "All incidents are handled at the lowest possible organizational and jurisdictional level. Police, fire, public health and medical, emergency management, and other personnel are responsible for incident management at the local level."<sup>6</sup> Local emergency authorities know their local area, the assets available and have the training and expertise to be able to immediately respond. When local authorities exceed their ability to handle the situation they request the state for additional assistance.

Our constitution empowers the states to provide for their own protection and governance which includes response management to disasters. Another fundamental application of the

United States Constitution gives States the right to have militias (National Guard) that are controlled by the State Governor to enforce state laws and protect the state. It is through the employment of National Guard forces that the states can provide additional assistance to local authorities for disaster response. "The purpose of the National Guard is to provide a state military force to respond to disasters. The guard is fully integrated into the civil response force and trains with them regularly."<sup>7</sup>

When federal response to a disaster is required, the Department of Homeland Security, and more specifically FEMA has the lead for coordinating and managing all response and recovery operations. Under the Department of Homeland Security since 2003, FEMA's mission is to "lead the effort to prepare the nation for all potential disasters and to manage the federal response and recovery efforts following any national incident-whether natural or man-made."<sup>8</sup> The NRP designates various agencies to support FEMA in domestic incident response and management through specific numbered Emergency Support Functions (ESF). Numerous agencies provide support to each ESF with one agency acting as the lead agency and the others in support of the lead agency. As outlined in the National Response Plan, DOD provides Defense Support to Civil Authorities (DSCA) in a supporting role and responds to domestic emergencies in support of another federal agency when needed.<sup>9</sup> The importance of ESF #1 (Transportation) and the role that DOD plays as a supporting agency under the NRP will be discussed later.

The United States Army War College publication, How the Army Runs states "The military serves to support and defend the nation; this responsibility extends to military responses to domestic emergencies and disasters."<sup>10</sup> In the October 2, 2005 edition of Parade magazine, Chairman of the Joint Chiefs of Staff, General Peter Pace stated that "Our fellow citizens are right to expect our military will act during a disaster."<sup>11</sup> Under current policy the Secretary of Defense generally authorizes DSCA under three circumstances: "(1) at the direction of the President; (2) at the request of another Federal Agency in accordance with the Economy Act for non-Stafford Act responses; and (3) in response to a request under the Stafford Disaster Relief and Emergency Act. The Stafford Act authorizes the President to issue major disaster declarations that authorize the federal military to provide assistance to states overwhelmed by disasters after a request for assistance is made by the Governor."<sup>12</sup> There are exceptions to the three normal circumstances that the SECDEF uses for authorizing DSCA. An example of this is DSCA support to the United States Secret Service.

"The Department of Defense (DOD) provides DSCA in order to prevent terrorist incidents or manage the consequences of an attack or a disaster. DOD provides support to a lead

federal agency once requested. Civil authorities are most likely to request DOD support where we have unique capabilities to contribute or when civil responders are overwhelmed.”<sup>13</sup> The inherent problem with activating federal forces is response time. Because disaster relief is a graduated response, the ability for federal forces to become immediately activated and involved is often hampered by a slow request from a state’s governor. This further exasperates the situation and in the case of a catastrophic disaster where there is no warning (an example of this would be a terrorist attack using nuclear, biological or chemical weapons) the inability of federal military forces to immediately respond into the effected area would most likely result in unnecessary loss of life or limb. This fact is an important point to remember as lessons learned from Hurricane Katrina transportation operations are discussed.

#### Transportation for Evacuation and Emergency Response

Recently during a panel discussion at the Center for Strategic International Studies in Washington, D.C., former FEMA director under the Clinton Administration, the Honorable James Witt was asked how he would have handled the Hurricane Katrina crisis differently if he had been the FEMA director at the time. His response was to ask every emergency manager and elected official: “What are the resources you are going to need to get the people out of there before the storm hits?”<sup>14</sup> This statement identifies the greatest problem identified from the Hurricane Katrina response that needs revision: the transportation plan for evacuation and emergency response. Lives were lost and undue pain and suffering occurred because people were not evacuated out of harm’s way.

Evacuation operations and coordinating the transportation effort to move evacuees is graduated and begins with local authorities. Throughout the Gulf States in Hurricane Katrina’s path, the preparation and the ability to move members of the population that were ordered to evacuate was severely lacking. A common theme among Louisiana, Mississippi, and Alabama was to create “contra-flow” traffic patterns or traffic patterns that maximize the use of highways to open lanes that flow out of the area in the direction of safety. When using contra-lanes, inbound lanes to the danger area are reduced and turned into lanes for the flow of traffic in the opposite direction.<sup>15</sup> While this maximized the flow of traffic for evacuees that had a vehicle to self-evacuate themselves, the problem lied with those that had no transportation. This problem was multiplied in the city of New Orleans when a need to conduct evacuations occurred twice within days: prior to Hurricane Katrina making landfall and after the levees broke and flooded the city.

### The Failure of Local and State Response in Louisiana

The Southeast Louisiana Hurricane Evacuation and Sheltering Plan established in January 2000 called for public transit and school buses to take people out of New Orleans once the Governor declared a state of emergency. "The primary means of hurricane evacuation will be personal vehicles. School and municipal buses...may be used to provide transportation for individuals who lack transportation and require assistance in evacuating."<sup>16</sup>

Mayor of New Orleans Ray Nagle knew that disaster planning experts from New Orleans estimated that 100,000 city residents did not have their own transportation to evacuate, let alone move to a shelter.<sup>17</sup> On 28 August the day before Hurricane Katrina made landfall, Governor Blanco stated, "Today we're focusing on the final people in the city, encouraging them to leave. There will be all sorts of modes of transportation available to those that don't have transportation."<sup>18</sup> This did not happen. Buses from the various parishes within New Orleans sat idle for days prior to the hurricane making landfall instead of being used for evacuation. Several hundred school buses sat idle due to the city being unable to find drivers.<sup>19</sup> Louisiana Governor Blanco stated that FEMA asked the state not to use school buses due to the fact that they were not air-conditioned and had the potential risk of causing heat stroke. Governor Blanco later learned on 31 August, two days after the hurricane hitting, that the FEMA buses were coming from outside the state and could not arrive immediately.<sup>20</sup> Once Hurricane Katrina passed and the levees were breached there were hundreds of parish school system buses flooded but there were also hundreds of buses not flooded that had clear access to the Superdome that could have been used for evacuation.<sup>21</sup>

Another evacuation transportation failure was the city of New Orleans authorities declining an offer by Amtrak to move hundreds of evacuees out of the city prior to the hurricane. "We offered the city the opportunity to take evacuees out of harm's way," stated Amtrak spokesman Cliff Black. "The city declined."<sup>22</sup> This resulted in a virtually empty train leaving New Orleans. Degraded infrastructure greatly inhibited evacuation operations but had there been an agency with the expertise to access the transportation situation and coordinate response more could have been done to move personnel. The coordination of transportation for evacuation did not get better when DOT, under FEMA direction, took over the command and control of assets as outlined in the National Response Plan.

### Understanding Federal Transportation Response

Department of Transportation Order 1900.9 defines a Disaster as "a fundamental disruption of socioeconomic activity resulting from natural or human causes that is characterized

by actual or potential significant loss of life...interruption of transportation operations or damage to portions of the transportation infrastructure that are beyond the response capabilities of state and local authorities.<sup>123</sup> The National Response Plan's Logistics Management Support Annex defines the Emergency Support Functions (ESFs) for logistics management during an Incident of National Significance. The Department of Homeland Security and the Federal Emergency Management Agency (FEMA) logistics sections are responsible for activating ESF #1 and for coordinating and managing transportation assets with DOT during an emergency.<sup>24</sup> The NRP assigns the Department of Transportation (DOT) as the coordinating agency for all transportation assistance in support of agencies under the NRP, including requests for military transportation.<sup>25</sup> In the event of a catastrophic domestic disaster movement of initial transportation response resources is coordinated by DOT and FEMA Logistics to establish the priority of movement based on the situation. When ESF #1 is activated, the DOT establishes and mans the Movement Control Center (MCC) of the National Response Coordination Center (NRCC) and establishes the Emergency Transportation Center (ETC). Included in the MCC is representation from the DOD, FEMA, the General Services Administration (GSA) and the Forest Service.

National-level transportation policy direction and management are done by the DOT Crisis Coordinator appointed by the DOT. The DOT Crisis Coordinator also represents the DOT at the Interagency Incident Management Group (IIMG) during disasters.<sup>26</sup> The MCC is established at the FEMA headquarters (NRCC) by the DOT Crisis Coordinator.

The Disaster Transportation Management System (DTMS) is the structure for managing transportation services and the deployment of relief and recovery assets into the disaster area. The DTMS consists of two components: Time Phased Force Deployment Lists (TPFDLs) that prioritize federal assets to be deployed and the MCC to manage and procure transportation assets.<sup>27</sup> It is important to note this because USTRANSCOM assists in the development of the TPFDD with DOT and can easily run an MCC through any of its subordinate commands emergency operations centers. This is the first sign of some redundancy between the DOT and USTRANSCOM under ESF #1.

It is important to note the specific areas under ESF #1 that DOT is responsible for. These include; coordinate the provision of Federal and civil transportation capacity in support of federal, state and local governmental entities; provide staffing and manage MCCs; manage the financial aspects of ESF #1 to include processing for reimbursement from FEMA; assess transportation infrastructure damage and its impact on transportation operations regionally and nationally; coordinate and implement emergency related response and recovery transportation

functions; provide technical assistance to federal, state and local authorities to determine the most viable transportation networks within the disaster area; identify resource requirements for transportation and coordinate their allocation.<sup>28</sup> These responsibilities span all aspects of transportation to include: aviation, highway, vessels, ports and waterways, transit, pipelines, rail and assessing and managing national transportation infrastructure.<sup>29</sup>

Under ESF #1, the DOD provides national disaster support in three areas: 1) the emergency operation of inland waterways, ports and harbors; 2) assistance in restoring the transportation infrastructure; and 3) by providing organic military transportation capacity from the United States Transportation Command (USTRANSCOM). USTRANSCOM coordinates all military assets and the deployment of those assets into the disaster area and also assists the DOT in the development and execution of the TPFDLs.<sup>30</sup> USTRANSCOM is also responsible for providing medical patient transportation assets as a supporting agency to the Department of Health and Human Services under ESF #8 (Public Health and Medical Services).

#### The Federal Response to Hurricane Katrina

In testimony to the Committee on Appropriations, Subcommittee on Transportation, Treasury, Housing and Urban Development, United States House of Representatives, Secretary of Transportation, the Honorable Norman Mineta stated, "I am very proud of the work that the Department of Transportation (DOT) has done to respond to Hurricane Katrina and assist citizens of the Gulf region begin their recovery."<sup>31</sup> There is little doubt that individuals performed admirably during Hurricane Katrina's response but a greater question is whether or not DOT and FEMA as the responsible agencies did.

In the National Response Plan the guiding principles for Proactive Federal Response state that the "primary mission is to save lives; protect critical infrastructure, property and the environment; contain the event; and preserve national security."<sup>32</sup> In the case of Hurricane Katrina the key to saving lives was evacuation. Even with forewarning of the pending disaster the coordination for transportation assets to conduct evacuations failed at all levels. Senior vice president for preparedness and response at the Red Cross Joe Becker stated; "The problem was transportation-we could have taken hundreds more people in shelters as beds lay empty."<sup>33</sup> As of 29 August 2005, the day that Hurricane Katrina made landfall, Major General Richard Rowe, Operations Officer for NORTHCOM stated that; the only request the U.S. military received from FEMA was for a half-dozen helicopters."<sup>34</sup> Colonel Jeff Smith, Louisiana's emergency preparedness chief grew frustrated at FEMA's inability to send buses to move people out. "We'd call and say: 'Where are the buses?' and they'd say: 'We sent 349.' But we

didn't see them."<sup>35</sup> Director of FEMA Michael Brown on 29 August instructed emergency service personnel not to send trucks or emergency workers to disaster areas without a specific request from state or local authorities.<sup>36</sup> Brown gave these instructions as Hurricane Katrina made landfall and the levees had already begun to be breached. The NRP is based on graduated response but when federal assets are needed there is an expectation that the federal agencies will be able to assist. In coordinating the necessary transportation assets required to conduct evacuation operations both FEMA and DOT failed.

Three days after Hurricane Katrina struck and FEMA officially took over the evacuation coordination, Roy Williams, the aviation director at Louis Armstrong International Airport outside New Orleans complained that "we are packed with evacuees and the planes are not being loaded and there are gaps of 2 or 3 hours when no planes are arriving." Williams started fielding calls from airlines who stated that they were being told by FEMA that "New Orleans doesn't need any planes."<sup>37</sup> On 2 September, 5 days after landfall and the breach of the levees, fifteen airlines begin flying refugees out of New Orleans to San Antonio.<sup>38</sup> During airlift evacuation between September 3 and September 11, DOT evacuated approximately 24,400 people via airlift.<sup>39</sup> This of course for some refugees was two weeks after Hurricane Katrina made landfall and the levees were breached. An additional offer by Amtrak to run a twice-a-day shuttle for 600 evacuees was turned down by DOT following the breach of the levees.<sup>40</sup>

In executing the evacuation, FEMA and DOT officials never requested any of the unique military assets available like the USS Bataan. The USS Bataan was sitting off the coast with operating rooms and room for 600 patients which would have eased the burden placed on hospitals that were overloaded with emergency room patients and had the requirement to evacuate hospital beds. Special requirement evacuees like the elderly, handicapped and hospital patients pose unique transportation challenges which USTRANSCOM could have provided.

#### Change ESF #1 Management Now

The numerous examples of FEMA's failure to execute an evacuation plan and DOT's inability to optimize the transportation assets available are cause to question their role in providing and managing transportation assets for disaster response. The NRP puts the responsibility for transportation on DOT during a disaster but as Hurricane Katrina showed this may be too much for them to handle. The magnitude of a catastrophic disaster the size of Hurricane Katrina far outstretched the capacity of DOT to handle all the responsibilities they

have under ESF #1. I suggest that the transportation responsibilities currently given to DOT in ESF #1 should be amended to split these responsibilities between DOT and USTRANSCOM.

Coordination of transportation assets, their management and employment, and the command and control of these assets should not remain with DOT. The United States Transportation Command (USTRANSCOM) has the expertise and the command and control systems that could coordinate and maximize transportation assets when a disaster is pending or occurred. Currently USTRANSCOM coordinates for military movements within the United States using military and commercial assets and is better suited than any other agency to coordinate the volume of transportation assets needed during a time of emergency. USTRANSCOM is the single point manager of the Defense Transportation System (DTS).

In the event of a disaster, USTRANSCOM currently maintains an Emergency Operation Center 24 hours and day, seven days a week and has visibility of transportation nodes throughout the country. The requirement for DOT's Crisis Coordinator to establish a movement control center with FEMA would be eliminated and FEMA could provide liaisons to USTRANSCOM and visa versa. For state of the art emergency C2 capabilities USTRANSCOM has a Deployable Operations Center equipped with the necessary command, control, communications and computer systems that could be configured to run all of the C4S required during a national emergency.<sup>41</sup> This capability was recognized during Hurricane Katrina, when USTRANSCOM established a Deployment and Distribution Operations Center (DDOC) at Fort Gilliam, GA to support NORTHCOM operations and provide transportation and distribution expertise.

Like DOT, USTRANSCOM also actively participates and manages the Civil Reserve Air Fleet (CRAF) program. CRAF is a contractually committed agreement from U.S. commercial airlines to support DOD airlift requirements in emergencies when the need for airlift exceeds the capability of military aircraft.<sup>42</sup> On the DOD side, the CRAF program is managed by the Air Mobility Command, a subordinate of USTRANSCOM. CRAF has three main segments: international, national and aeromedical evacuation. The national and aeromedical evacuation segments provide enhanced transportation assets and capacity for disaster response and USTRANSCOM has the expertise to employ these assets quickly. The domestic section is designed to satisfy increased DOD airlift requirements in the United States during an emergency.<sup>43</sup>

For sealift support to disasters DOT has the Maritime Administration (MARAD) which controls the Ready Reserve Fleet (RRF). The RRF is a group of approximately 90 ships that can be activated in 4 to 20 days. The importance here is that the RRF is turned over to the

Military Sealift Command (MSC), a subordinate unit of USTRANSCOM during war or other emergencies.<sup>44</sup> By giving USTRANSCOM the transportation asset authority in ESF #1, this would remove one layer of bureaucracy and coordination. USTRANSCOM also manages the Voluntary Intermodal Sealift Agreement (VISA) that could be implemented during national emergencies. VISA provides assured access to commercial shipping during a national emergency and during peacetime these shipping companies are awarded cargo movement contracts.<sup>45</sup>

The Surface Deployment and Distribution Command (SDDC) the third subordinate unit of USTRANSCOM, has the responsibility for contracting DOD truck and rail support within the United States and has the expertise needed to coordinate assets for disaster response. An important enabler for transportation asset management that USTRANSCOM can provide is the fact that each of USTRANSCOM's subordinate commands AMC, MSC and SDDS maintain fully functioning Emergency Operations Centers (EOC). Unlike DOT, command and control is fully integrated for all modes of transportation under one command and the need to establish a MCC is not required under USTRANSCOM C2 structure.

Hurricane Katrina proved that a catastrophic domestic disaster of great magnitude can quickly cripple local and state ability to respond. At the federal level our nation's ability to move out evacuees and move in the required response personnel and equipment failed in response to Hurricane Katrina. As horrific as Hurricane Katrina and the breaching of the levees in New Orleans was, a scenario involving WMD could be exponentially worse. An event involving WMD that produces contamination of everything within a geographic area and mass casualties produces a set of circumstances that the NRP doesn't adequately address. Much of the expected transportation assets may not participate. While the NRP is meant to be a comprehensive plan for "all-hazards", a disaster that involves nuclear, biological or chemical hazard and/or contamination will strain response resources to a new level. Programs like CRAF which involve civilian companies may refuse to go into contaminated areas greatly reducing required capabilities. Much like the commercial carriers reluctance to transit into combat zones, a disaster that contaminates an area will most certainly produce a greater reluctance to participate. Federal response to catastrophic disasters involving Weapons of Mass Destruction (WMD) may only have military assets to count on. Instead of DOT needing to coordinate with USTRANSCOM for military assets, USTRANSCOM should have the responsibility for all modes of transportation assets under ESF #1. A better division of transportation responsibilities under ESF #1 would enable the federal authorities to provide a better response when needed. USTRANSCOM should always have the lead for transportation asset coordination and

management if FEMA invokes ESF #1 under the NRP. Local and state authorities and DOT would still remain responsible for other various aspects of transportation requirements under ESF #1.

#### The Other Transportation Responsibilities

The complexities of movement control especially when highways are used for contra-flow needs to remain under the operational control of local and state police. To implement an effective contra-flow plan the state needs to suspend all tolls and open free access through toll areas. Local and state authorities in conjunction with DOT need to facilitate the flow of information to evacuees on road conditions, real-time traffic reports, the current situation and the location of amenities (rest stops, bathrooms, gas stations and first aid stations). DOT and state authorities also need to coordinate and provide additional fuel, water, food, vehicle recovery, first aid stations and porta-lets along major evacuation routes.

Under ESF #1 DOT needs to retain responsibility for the regional and national transportation infrastructure in conjunction with local and state authorities. As a governmental department DOT has interagency connectivity with the Office of Management and Budget and FEMA to influence policy and provide financial stewardship of funds dedicated to federal transportation infrastructure issues. DOT also needs to retain financial oversight of federal dollars given to states to replace destroyed transportation assets. An example of this is where DOT gave 22 transit bus operators in Mississippi access to a total of \$6.1 million to buy new vehicles, pay salaries and provide other necessities that will facilitate restoration of service.<sup>46</sup> USTRANSCOM as a DOD organization does not have the authority or the expertise to act in fiscal matters concerning transportation infrastructure or procurement. Financial management of federal funds for transportation infrastructure and asset procurement needs to remain under DOT.

During a disaster, an area that is often overlooked is the need for DOT to grant exemptions to transportation carriers. DOT has the governmental authority to grant emergency exemptions to U.S. codes that often restrict carriers on the amount of flights into an area and flight scheduling. In response to Hurricane Katrina DOT issued several emergency exemptions in order to expedite flights for evacuation into the area. Order 2005-9-2 issued on 6 September granted emergency exemption under 49 U.S.C. to licensed airline carriers so they could provide flights as needed to assist in the carriage of freight and people affected by Hurricane Katrina, and transport relief personnel and supplies into the affected areas.<sup>47</sup> The capability to grant emergency exceptions to U.S. Codes must remain within the auspices of the DOT.

The last area of responsibility that needs to remain with DOT is pipeline management. One of the agencies under the DOT is the Pipeline and Hazardous Materials Safety Administration (PHMSA) which proved invaluable during the Hurricane Katrina response. The day after Katrina hit the PHMSA identified that the Colonial and Plantation pipelines had been shut down due to electrical outages. The PHMSA deployed operators to each rural pumping station and approved the manual operation of facility controls. These actions allowed the only major source of gasoline, jet and diesel fuel for the southeast United States to be restored and proved PHMSA's expertise.<sup>48</sup> USTRANSCOM has no expertise in this area, therefore, DOT needs to retain the responsibility for pipeline management.

#### What Did We Learn From Hurricane Katrina-What Choices Should Be Made?

Recently, documents released by the Senate Homeland Security and Governmental Affairs Committee showed that hundreds of available trucks, boats, planes and federal officials were unused in search and rescue efforts because FEMA failed to give them missions.<sup>49</sup> A report released by House investigators regarding actions during Hurricane Katrina entitled "A Failure of Initiative" is one of three separate reviews by the House, Senate and White House that identify gross failures in transportation asset management and command and control. The report states that a critical federal mistake was the failing to foresee the need to muster buses, boats and aircraft.<sup>50</sup>

In a USA Today interview, Senator David Vitter, R-La., said the Defense Department, not FEMA, is best equipped to respond to large scale emergencies such as Hurricane Katrina.<sup>51</sup> Hurricane Katrina proved that the emergency response plan outlined in the National Response Plan needs revision but as a "framework" for disaster response on a national level it is basically sound. The Stafford Act provides the mechanism for federal military force involvement in disasters declared by the President. Our DOD policy regarding defense support to civil authorities is correct, and within the National Response Plan it is right to assume that federal military forces are in the supporting role and deployed only upon request using the three mechanisms currently in place for activation. This keeps the autonomy with the local and state governments to react and respond to the situation and leaves them the option of requesting federal military forces in the event that they are overwhelmed and upholds the State Governor's authority as outlined in the United States Constitution. Emergency response needs to remain a graduated response based on the severity of the situation with local and state responders in the lead. The failure of the NRP during Hurricane Katrina was due to the failure of the DHS, FEMA

and the White House to activate federal troop involvement earlier and not recognize the shortfalls in executing the responsibilities given to lead agencies established in the NRP.

While federal military forces offer unique capabilities in equipment and personnel, their ability to deploy the necessary forces immediately into the affected area is severely restricted. This lapse in response time may cause unnecessary loss of life and delay alleviating the suffering. Unfortunately as lessons learned from Hurricane Katrina show the lack of local, state and federal transportation response did result in unnecessary loss of life. In the 2 September edition of the New York Times, Paul Krugman wrote "Thousands of Americans are dead or dying, not because they refused to evacuate, but because they were too poor or too sick to get out without help-and help wasn't provided."<sup>52</sup> In the case of Hurricane Katrina the failure of local and state authorities to properly execute transportation response was directly responsible for casualties. Federal response was late, uncoordinated and sporadic. This was further complicated by the lack of adequate transportation to respond to the disaster.

Although the Department of Transportation did not totally fail in response to Hurricane Katrina, lessons learned showed the inherent delay in implementing transportation functions under ESF #1. The need for FEMA to activate ESF #1 and DOTs requirement to appoint a DOT Crisis Coordinator, establish and staff an MCC and determine transportation requirements and sources delayed the employment of needed assets. USTRANSCOM has the C2 structure required to handle major transportation movements and operations already in place and is better suited to coordinate transportation assets. The creation of the DDOC structure within USTRANSCOM has increased its capabilities for handling catastrophic disasters and for providing enhanced transportation management.

### Conclusion

The aftermath of Hurricane Katrina showed the lack of training, coordination and leadership at all levels of government to effectively handle a catastrophic disaster. Evidence points to the inability of local and state authorities to coordinate the transportation assets required under city and state emergency plans for search and rescue and evacuation resulting in unnecessary loss of life. Various after action reports and congressional investigations all point to the fact that the execution of the transportation plan in ESF #1 of the NRP failed. State and federal DOTs don't have the expertise or leadership necessary to execute a complex transportation plan when a catastrophic event happens and this is precisely why ESF#1 in the NRP needs revision.

I propose that USTRANSCOM should be made the lead agency for transportation asset command, control and coordination under ESF#1. The authority to process and coordinate requests for federal and civil transportation support and to coordinate for alternative transportation services needs to be given to USTRANSCOM. The precedent for having a DOD entity as the lead agency for an ESF was established when the United States Army Corps of Engineers became the lead agency for ESF #3. USTRANSCOM could become the lead agency for ESF #1 and DOT could retain the other necessary transportation requirements as a supporting agency.

The main objective of amending ESF #1 would be to expand USTRANSCOM's role in disaster response. Lessons learned from Hurricane Katrina showed the enormous span of transportation requirements during a catastrophic domestic disaster. In future disasters, the need to rapidly employ transportation assets for evacuation, movement of emergency personnel and supplies and medical movements is critical to saving lives and reduce suffering. When a federal response to a disaster is required, a division of transportation responsibilities under ESF #1 between DOT and USTRANSCOM would maximize our ability to respond. I recommend review of the NRP's ESF #1 be conducted.

Amending ESF #1 now could allow the necessary coordination and establishment of responsibilities between DOT and USTRANSCOM to begin. It is inevitable that a disaster will strike our nation again—next time we need to be better prepared to respond with the transportation needed.

#### Endnotes

<sup>1</sup> Jeffrey A. Zinn, *Coastal Demographics and Development Patterns*, Congressional Research Service Report 97-588 ENR, 1.

<sup>2</sup> United States Department of Transportation, *Disaster Response and Evacuation User Service*, (Washington D.C.: United States Department of Transportation, National ITS Architecture Team, 15 July 2003), 13.

<sup>3</sup> Office of Homeland Security, *The National Strategy for Homeland Security, Executive Summary* (Washington D.C.: Department of Homeland Security, July 2002), vii.

<sup>4</sup> Department of Homeland Security, *The National Response Plan*, (Washington D.C.: Department of Homeland Security, December 2004), 9.

<sup>5</sup> *Ibid.*, 2.

<sup>6</sup> The Department of Homeland Security Home Page, available from <http://www.dhs.gov/dhspublic/>; Internet; accessed 11 October 2005.

<sup>7</sup> The Honorable Rick Perry, "Federalizing Disaster Response," *The Heritage Foundation Lecture #905*, (7 November, 2005).

<sup>8</sup> The Federal Emergency Management Agency Home Page, available from <http://www.fema.gov/rrr/rep/mission.shtm>; Internet; accessed 12 February 2006.

<sup>9</sup> Ibid.

<sup>10</sup> United States Army War College, *How the Army Runs-A Senior Leader Reference 2005-2006*, (U.S. Army War College, Carlisle, Pa.) U.S. Government Printing Office, Chapter 23 Defense Support of Civil Authorities, 23-1.

<sup>11</sup> "Parade Magazine, 2 October, 2005, cover page.

<sup>12</sup> *The Robert T. Stafford Disaster Relief and Emergency Assistance Act*, U.S. Code 42 sec. 5121, as amended by Public Law 106-390 (2000).

<sup>13</sup> Donald Rumsfeld, *Strategy for Homeland Defense and Civil Support*, (Washington, D.C.: U.S. Department of Defense, 2005), 14.

<sup>14</sup> Gary Feuerberg, "Hurricane Katrina: Lessons Learned The Epoch Times," 4 December 2005; available from <http://www.theepochtimes.com/news/5-12-4/>; Internet; accessed 12 February 2006.

<sup>15</sup> Susan B. Glasser and Michael Grunwald, "The Steady Buildup to a City's Chaos," *The Washington Post*, 11 September, 2005. available from <http://www.nytimes.com>; Internet; accessed 11 September 2005.

<sup>16</sup> *The Louisiana Homeland Security and Emergency Preparedness Home Page*, Southeastern Louisiana Hurricane Evacuation and Shelter Plan, available from <http://www.ohsep.louisiana.gov>; Internet; accessed 12 February 2006.

<sup>17</sup> Ibid.

<sup>18</sup> *Hurricane Katrina: What went wrong*, available from <http://www.washingtonpost.com/wp-dyn/content/custom/2005/09/11/>; Internet; accessed 14 January 2006.

<sup>19</sup> *The Effect of Hurricane Katrina on New Orleans*, available from [http://en.wikipedia.org/wiki/Hurricane\\_Katrina](http://en.wikipedia.org/wiki/Hurricane_Katrina); Internet; accessed 15 October 2005.

<sup>20</sup> *Disaster response records, interviews reveal some of why storm relief took so long KATRINA TIMELINE*, available from <http://www.2theadvocate.com/stories/091805/newblanco001.shtml>; Internet; accessed 17 November 2005.

<sup>21</sup> *The Effect of Hurricane Katrina on New Orleans*, available from [http://en.wikipedia.org/wiki/Hurricane\\_Katrina](http://en.wikipedia.org/wiki/Hurricane_Katrina); Internet; accessed 15 October 2005.

<sup>22</sup> Ibid.

<sup>23</sup> Department of Transportation, *Order 1900.9, U.S. Department of Transportation Research and Special Programs Administration*, (Washington D.C.: U.S. Department of Transportation, April, 2000), 4.

<sup>24</sup> *The National Response Plan*, available from <http://www.dhs.gov/interweb/assetlibrary/NRPbaseplan.pdf>; Internet; accessed on 11 January 2006.

<sup>25</sup> Ibid., LOG-3.

<sup>26</sup> Ibid., LOG-12.

<sup>27</sup> Ibid., 41.

<sup>28</sup> Ibid., LOG-8.

<sup>29</sup> *Secretary of Transportation Mineta's Congressional Testimony regarding Hurricane Katrina* available from <http://testimony.ost.dot.gov>; Internet; accessed on 13 October, 2005.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> *The National Response Plan*, available from <http://www.dhs.gov/interweb/assetlibrary/NRPbaseplan.pdf>; Internet; accessed on 11 January 2006., 43.

<sup>33</sup> Susan B. Glasser and Michael Grunwald, "The Steady Buildup to a City's Chaos," *The Washington Post*, 11 September, 2005. available from <http://www.nytimes.com>; Internet; accessed 11 September 2005., 5.

<sup>34</sup> Ibid., 7.

<sup>35</sup> Ibid.

<sup>36</sup> *Hurricane Katrina: What went wrong*, available from <http://www.washingtonpost.com/wp-dyn/content/custom/2005/09/11>; Internet; accessed 14 January 2006.

<sup>37</sup> Ibid., 10.

<sup>38</sup> The Brookings Institution Hurricane Katrina Timeline available from <http://www.brookings.edu/fp/projects/homeland/katrinatimeline>; Internet; accessed on 12 February 2006.

<sup>39</sup> *Secretary of Transportation Mineta's Congressional Testimony regarding Hurricane Katrina* available from <http://testimony.ost.dot.gov>; Internet; accessed on 13 October, 2005.

<sup>40</sup> Ibid.

<sup>41</sup> USTRANSCOM power point brief (7 December 2005) available from <http://www.dodait.com/>; Internet; accessed on 17 January 2006.

<sup>42</sup> The United States Air Force Link Home Page available from <http://www.af.mil/factsheets/>; Internet; accessed on 23 December 2005.

<sup>43</sup> Ibid.

<sup>44</sup> The United States Merchant Marines: Military Sealift Command Ships Today, available from <http://www.usmm.org/msts/mscships/>; Internet; accessed on 17 January 2006.

<sup>45</sup> The United States Military Sealift Command: MSC overview, available from <http://www.msc.navy.mil/>; Internet; accessed on 17 January 2006.

<sup>46</sup> *Secretary of Transportation Mineta's Congressional Testimony regarding Hurricane Katrina* available from <http://testimony.ost.dot.gov/>; Internet; accessed on 13 October, 2005.

<sup>47</sup> Department of Transportation Order 2005-9-2 Granting Emergency Exemption under 49 U.S.C., (Washington D.C.:U.S. Department of Transportation, September 2005)

<sup>48</sup> *Secretary of Transportation Mineta's Congressional Testimony regarding Hurricane Katrina* available from <http://testimony.ost.dot.gov/>; Internet; accessed on 13 October, 2005.

<sup>49</sup> Lara Jakes Jordon, "FEMA failed to use many Katrina resources, new documents state," The Patriot News, 26 January 2006.

<sup>50</sup> Spencer S. Hsu, "Katrina Report Spreads Blame," 12 February 2006; available from <http://www.msnbc.com/>; Internet; accessed 12 February 2006.

<sup>51</sup> "Officials: Rita Response Used Lessons Learned from Katrina," USA TODAY Copyright AP (26 Sept 2005).

<sup>52</sup> *The Effect of Hurricane Katrina on New Orleans*, available from [http://en.wikipedia.org/wiki/Hurricane\\_Katrina](http://en.wikipedia.org/wiki/Hurricane_Katrina); Internet; accessed 15 October 2005.